ACTA ELECTROGRAPHICA, nr. 1, 1979

ORIGINAL PAPERS :

# • CONVERTOGRAPHIC DISPLAY OF THE BIOELECTRICAL PATTERN – STUDIES ON AMPUTATION EFFECTS

**I. Fl. Dumitrescu, I. Mamulaș, Liliana Dumitrescu, Alexandra Negoescu, Electrographic and Applied Bioengineering Laboratory, Bucharest, Romania.**

**Summary.** By using the convertographic method, the authors have studied the "postamputation" electrical phenomenon the Soviet authors described with the aid of high frequency photography technique (Kirlian) under the name of "phantom effect". Experimental researches on sectioned leaves, on mice with partially amputated tails or on cutaneous superficial lesions are presented, demonstrating by reproducible characteristic images the occurrence of an electromagnetic field phenomenon particularly structured within the amputation zone, with a rather long remanence post biological death. These phenomena may constitute arguments for proving the existence of a "bioelectrical pattern" in the living organisms' structure.

The present paper brings to your attention one of the most interesting aspects in the electrographic recordings, experimentally proving the phenomenological continuity between the biological electrical medium and the proximal electrical medium.

We have already defined the proximal electrical medium as an active interface structured by the living organism and separating the latter from the environmental electrical medium. (1).

From a structural point of view, the proximal electrical medium consists of elements resulting from the living organism's metabolism, having ionic charging generated by the

organism and kinetic energy mainly determined by the energetical gradients (electrical, thermic, pressure) existing between the living organism and the environment under the given conditions of the experiment.

The first data on the existence of the proximal electrical medium as a biophysical entity were incontestably supplied by Soviet researchers (Kirlian, Adamenko, Inyushin) by means of the Kirlian photography technique ; they rendered evident the electrical characteristics that brought into discussion the "biofield" or "bioplasma" theories using as argument the images obtained under the specific ionization conditions imposed by Kirlian photography (2, 3. 4).

One of the most interesting and convincing evidence on the existence of a biological cohesion between the layers of the proximal electrical medium was the obtaining of the "phantom leaf" effect, subsequently also reproduced by American researchers (Thelma Moss). (5).

In 1974 we developed the electronographic technique completely different from Kirlian photograpy and presented it at previóus international cnogresses. (6).

Electronography, in comparasion with the data furnished by the previous techniques supplied more exact details on the proximal electrical medium by rendering evident permanently structured elements in the form of the adherent airions surrounding the living organism, as well as some labile elements called by us free airions, which, detach themselves from the living organism. The occurrence of these two types of airions within the proximal electrical medium, depends on the biophysical gradients, which, having a temporo-spatial orientation give the possibility of studying the former by vectorial analysis. (7).

In this acception, the proximal electrical medium displays pulsatory phenomena by means of which the adherent airions layer is restructured by their continously or discontinously turning into a free form by eliminating gaseous ions resulted from pulmonary and cutaneous respiration.

The experiments performed by the electronographic technique on the "phantom effect", proved, that the "phantom" image consists of adherent airions outlining the cut-off section under the action of some cohesive physical forces, forming a virtual structure which we will call "electrical pattern". (fig. No. 1).

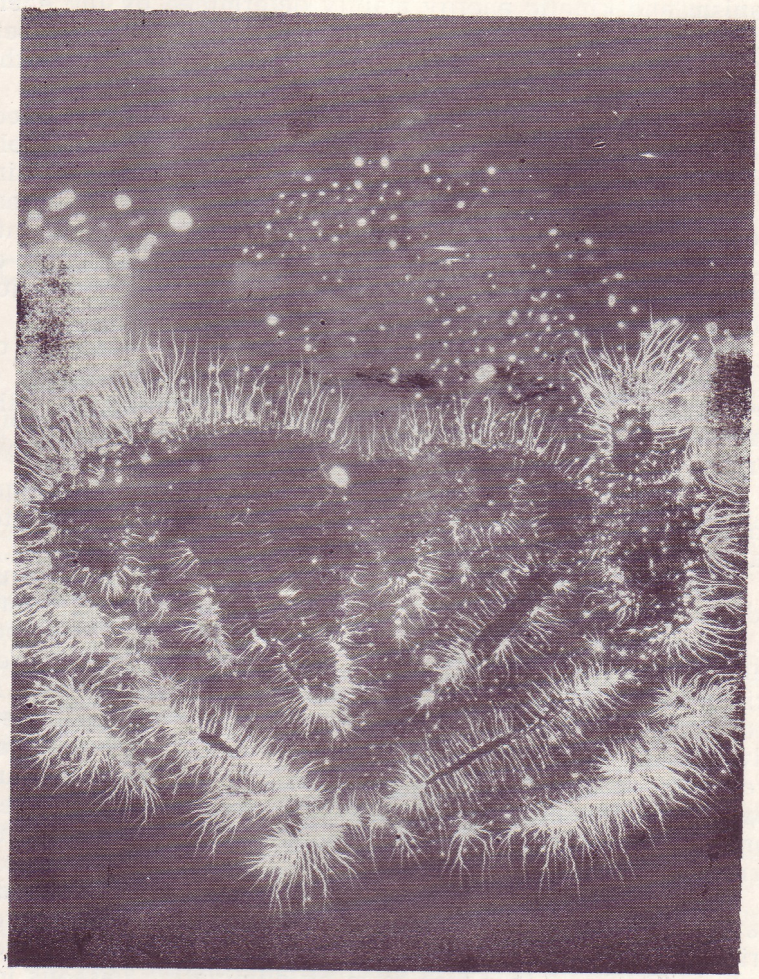


Fig. 1. „Phantom Effect“ obtained by electronograpy, positive unique impulse, 25 kv amplitude.

By operating through the organism-medium gradients, the forces generating the electrical pattern of the cut-off section can be annulled or diminished. Thus, the ionizing radiations (X or UV) as well as pressures annulling a critical gradient determine the disappearence of the "phantom" effect and explain its difficult reproduction.

In 1979, in our laboratory, we perfected and carried out a method completely different from the other electrographic methods : convertography. (8). This method depends on the property of some electronooptical convertor substances to store during a variable period of time (depending on their chemical composition), the spatial and temporal structure of the electromagnetic field where they are introduced ; this structure becomes evident during its subsequent irradiation by electromagnetic radiations of very high frequency of the X or UV type.

For the first time this technique supplied us major information on the configuration of the proximal electrical medium.

What follows is a brief presentation of some researches performed with the aid of this technique.

**Method, technique, devices.** In order to obtain the convertographic images, we used a 15 KV asynchronous impulse source with a screened exposure device connected to the impulse source. The mass system was achieved by antenna network disposed round the screen as well as by applying the investigated organism to the mass. The double-ground-connection is a specific condition in investigating the proximal electrical medium. (fig. No. 2).

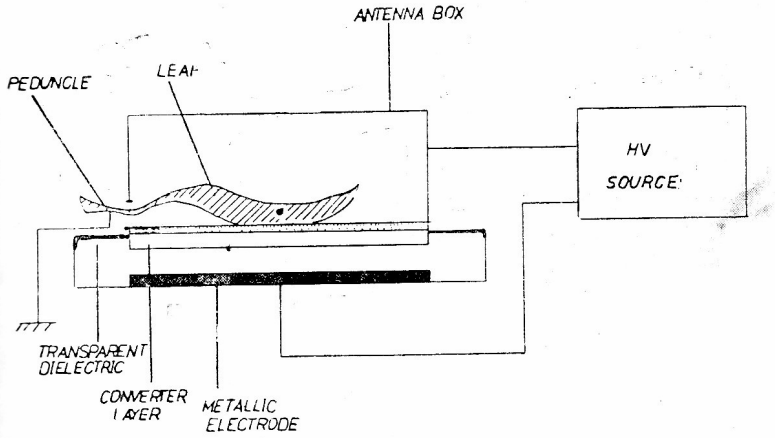
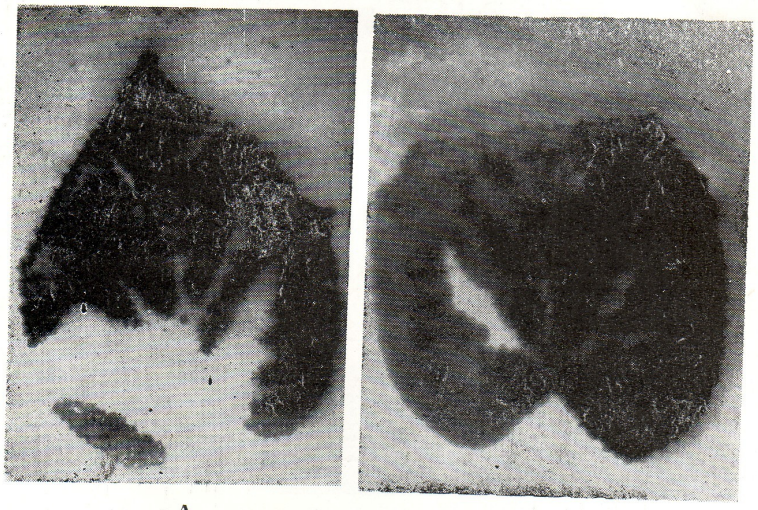



Fig. 2. General scheme of a convertographic recording box of the amputation effect (sequence I : electrical exposure)

Between the investigated organism and the exposure screen we placed the convertor layer obtained in our laboratory and called SMA-18. After the monopulse exposure, the convertographic screen was irradiated by long-waved X rays (10 KV, 4,5 mA) for 2 seconds. The image was copied on an ORWO-HS-11 radiological film and examined with the aid of the PRIM-1 images analysing electronic device.

**Results of experiment.**

I. There were performed convertographic images on leaves of Tillum species. When the leaves were not sectioned, a dark image appeared at the edge and within the contact zone with the convertor layer. When the leaves were sectioned, the sectioned part was surrounded by a characteristic dark zone. (fig. No. 3).



A B

Fig. 3. Convertographic images : A) Intact leaf
B) Amputated leaf

Between two neighbouring leaves the zones constant in character and delimitted in this way tended to confluent.

When the sectioned zones of the two leaves were placed in a parallel direction, there could be clearly seen the indi-

vidual distribution of the two dark zones and their curviliniar tendency depending on the configuration of each of the two leaves.

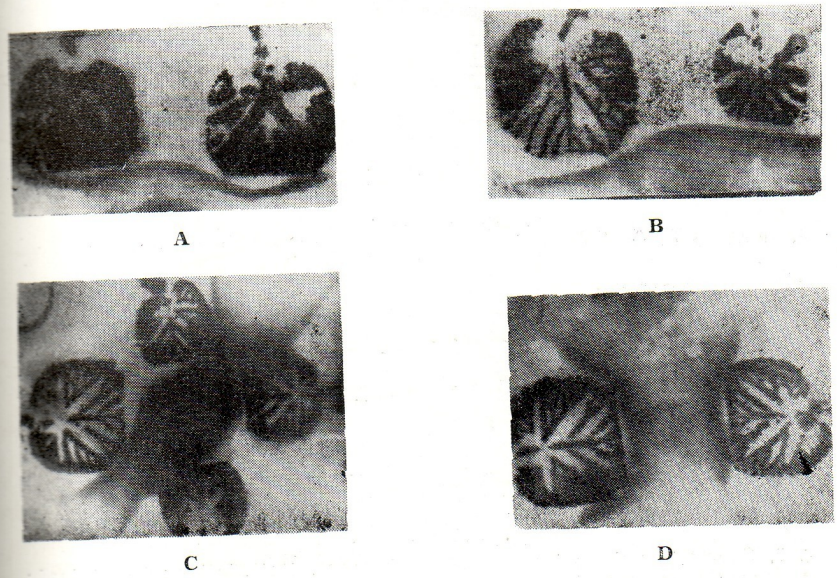



Fig. 4. Distribution of amputation convertographic effect for :
A) two mature leaves
B) young leaf and dead leaf
C) four leaves
D) opposed leaves

In an ensemble distribution, the dark zones tended to confluent depending on the distribution geometry of the leaves on the convertographic screen. (fig. No. 4).

This reproducibile phenomenon proves that through the sectioned zones, mobile structures were eliminated impressing the convertor substance by an image geometry depending on the characteristics of the electromagnetic field, propagated through these structures.

II. The spectral analysis within the sectioned zone, performed with the aid of the spectrography by electroluminescence, showed a temporary increase in the intensity of blue radiation followed by a significant decrease, as well as an increase in the red radiation. This phenomenon showed a

significant modification in the streamers' energetics according to a braking process gradually occurring within the zone corresponding to the "phantom" image. (fig. No. 5).

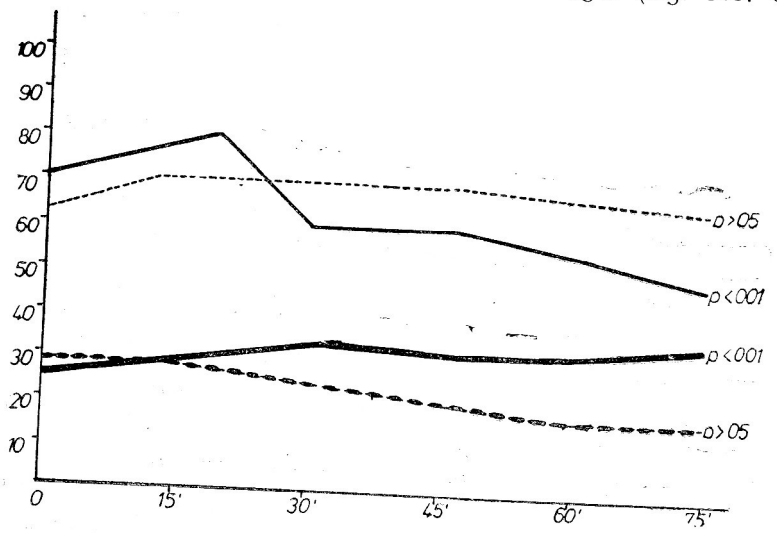



Fig. 5. Spectral analysis by electroluminescence. Dotted line : intact leaf ; continous line : amputated leaf ; thin line : emission in blue ; marked line : emission in red. (Recordings were performed for 75 minutes). Variations with intact leaf were without statistical significance ; with amputated leaf the curves indicated progressive increase in red emission followed by decrease in blue emission.

The recordings performed on an intact leaf edge did not display significant changes during a 75 minutes period.

The spectrographic exploration of the "phantom" space showed the occurrence of some corpuscular elements resulting by sectioning the leaf and changing the energetical configuration of the streamers.

III. We performed convertographic recordings on Wistar laboratory mice ; we studied concurrently the convertographic image round the distal amputated tail of a mouse (substring amputation for haemostasis) and of a normal mouse. The recordings were performed while the mice were alive, under narcotic sleep and 24 hours, after their death. Round

the amputated tail there appeared an image rather large in surface (a circle with a 4.5 mm radial), polymorphously

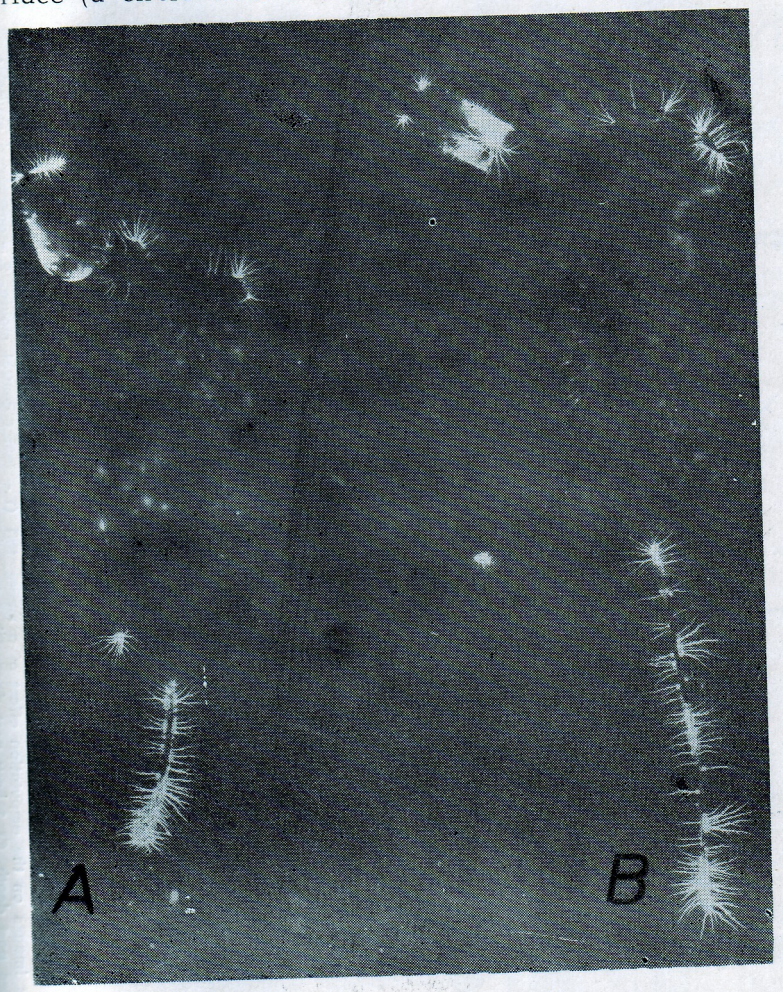



Fig. 6. Electrographic image by electroluminescence :
A) Amputated mouse
B) Control intact mouse
No equivalence with convertographic phenomenon

structured completely different from the image of the mouse with intact tail. (fig. No. 6).

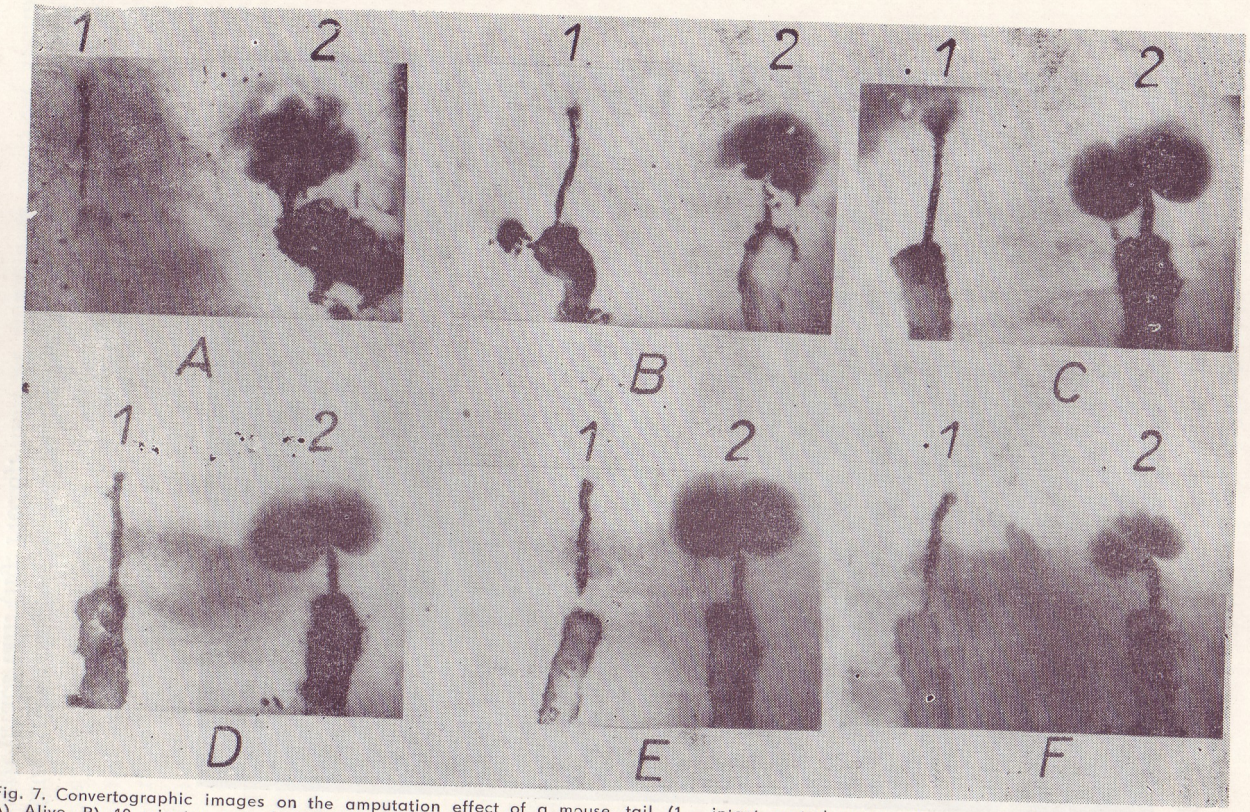



Fig. 7. Convertographic images on the amputation effect of a mouse tail (1 – intact control mouse, 2 – amputated mouse) :
A) Alive, B) 10 minutes post death, C) 1 hour post death D) 6 hours post death, E) 12 hours post death, F) 24 hours post death.

We were surprised to note that during over 24 hours, a bright round image constantly appeared round the amputated tail, which, while the animal was still alive displayed the specific aspect already mentioned above. After the death of the animals, the images taken successively displayed slow modifications in the images by structuring the dark image round the sectioned tail. (fig. No. 7).

By comparing the images of the amputated part, we noticed that while the animal was alive, there appeared rapid modifications in the image, while after death, the modifications became slower and more precisely delimitted.

The characteristic image appearing round the amputated tail of the mouse while being alive, did not appear round the tail of the test mouse amputated after death. (fig. No. 8).

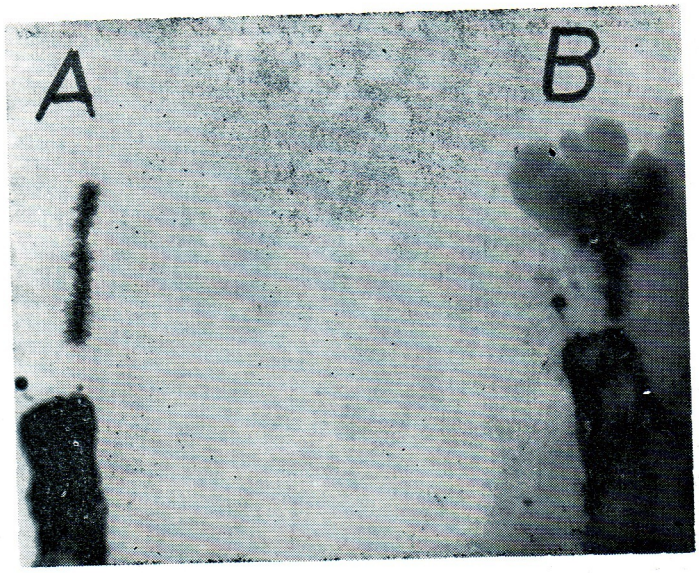



Fig. 8. Convertographic image on amputation phenomenon :
A) Mouse amputated post death
B) Mouse amputated while alive
The image was taken 10 minutes post death

The phenomena herein presented are reproducible. They display the propagation through the amputated zone of some structures adherent to the section surface. During a quite long period after death, these structures are subject

to important modifications under the influence of some physical factors presently under investigation.

IV. The researches presented above were enlarged by experiments performed on human hands. One of the fingers was lesioned by pricking. The convertographic image performed 10 minutes after complete haemostasis rendered evident a dark zone errupting from the lesioned point, round the lesioned finger. (fig. No. 9).

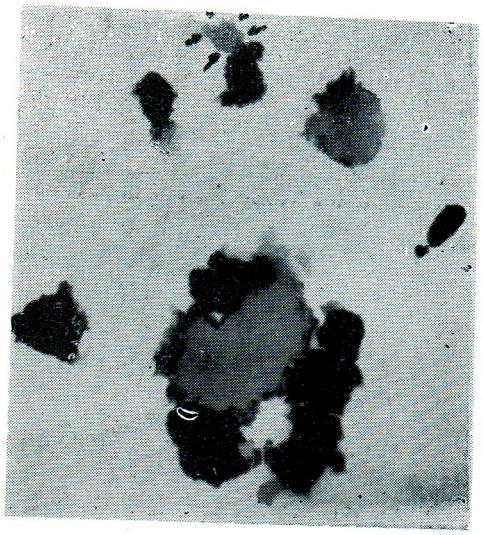


Fig. 9. Hand convertographic image with pricked medium finger. The image was taken 10 minutes post complete haemostasis and microlesion occlusion.

**Discussions.** The convertographic image is one of the most sensitive techniques in the study of the proximal electrical medium. The researches herein presented prove the way a proximal electrical medium structures when an organic part is cut-off. They render evident the occurrence, through the section, of some corpuscular structures of biological origin being distributed by adhesion forces to the organism that generated them.

From a biophysical point of view, they represent a conductive medium, through which, the electromagnetic field is prefferentially propagated, interacting with the convertor substance.

One of the most peculiar aspects is the continuity in the emission of these biological components after death and its persisting until the biophysical degradation of the living body is completed.

Consequently, the aspects related to death may be considered from an electrical point of view.

These phenomena bear the significance of some energetical discharges within the external electrical medium, and which, with the aid of the convertographic method can be deeply investigated.

The "phantom" image known from Kirlian photography, with the aid of convertography begins to find an explanation, supplying arguments in favour of the existence of the electrical pattern.

The organic lesion acquires a new bioelectrical significance, through the reactive expulsion of some gaseous substances that can take part in reestablishing the local electrical homeostasis.

Convertography is undoubtedly a wide possibility in the investigation of bioelectrical phenomena.

**REFERENCES**


1) Dumitrescu, I. Fl., Omul și mediul electric, Ed. Științifică și Enciclopedică, București, 1976
2) Moss, Thelma and Johnson, K., Bioplasma or Corona Discharge ? in Galaxy of Life ed. by Stanley Krippner and Daniel Rubin, An Interface Book, 1973, N. Y., London, Paris
3) Inyushin, V. M., Bioplasma and Interactions of Organisms, Symp. of Psychotronic, England, 1970
4) Kirlian, S. D., Kirlan, Valentina, Photography by Means of High-Frequency Currents, in Galaxy of Life ed. by Stanley Krippner and Daniel Rubin, An Interface Book, 1973, N. Y., London, Paris
5) Moss, Thelma, Acupuncture and Kirlian Photography, scientific movie, 1975
6) Dumitrescu, I. Fl., Romainian Patent No. 82, 222
7) Dumitrescu, I. Fl., Electronografia — Metode Electrografice în Biologie, Ed. Științifică și Enciclopedică, București, 1979
8) Dumitrescu, I. Fl., Mamulaș, I., Bala, M., Romanian Patent No. 95540